Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

THE NEW PATH.

VOL. II.] DECEMBER, 1865. [No. 12.

SCIENCE IN ITS RELATIONS TO ART.

[CONCLUDED.]

IN drawing or painting, the need of scientific knowledge is equally if not more apparent. We here are obliged to represent forms and distances on a flat surface. To do this we require all the knowledge we needed in sculpture, and more too. When we look out on a landscape we really see it as if it were a flat surface, but our eye has been so educated by experience that we at once place every object at its proper distance, and seem to really *see* the distances. It requires a great deal of knowledge to undo, as it were, all that we have learned, and place this landscape again on a flat surface, but yet in such a way that other eyes will still get the correct idea of distance. To do this we must learn the science of perspective. There have been painters who have represented landscapes with an approximation to correctness without ever having formally studied the laws of perspective, but they had grasped the subject intuitively and had learned its laws from experience. Their capacities were such as not many artists can hope to possess.

The painter of men and of animals is obliged to know as much of anatomy and of mechanics as was necessary for the sculptor. The painter of landscapes must have a far wider range of knowledge. There is no natural science that will come amiss to him. In order to give to us the appearances of the rocks and the distant mountains, the lovely valleys and the pleasant plains, he must be able to tell something of the geology of the region which he is about to paint. By knowing what is beneath the surface he will be able to paint its exterior more correctly. By knowing what produced those elevations and depressions he will be able more readily to represent their form and appearance. He must know something of botany too, to give to us a forest, with all its varieties of trees, of plants, and of mosses, to represent a meadow with its tall reeds and grasses and its brilliant summer flowers, or a brookside, with its creeping vines and its overhanging bushes. In order to paint plants *as* they grow, he must know *how* they grow. "But," some one will say, "this is all very well for those who paint things as they ought to be; what we want is merely to paint things as they are, or rather as we see them. Why, then, if we wish to paint an object in nature, is it not better for us to sit down before it and go to work? One eye will tell us all that we require. Should we not be rather led astray, than guided, by science, and paint what we suppose should be there rather than what is really there?" To such an one we would say, No. If you expect to see certain appearances under certain circumstances you will the sooner notice their absence. If you are aware of the particular mode of growth of any plant you will at once notice any irregularity or singularity about its growth. Instead of seeing there what you would suppose ought to be there, your eye is immediately struck by the absence of what you would expect.

Let us suppose that two equally conscientious artists, both desirous of giving the truth, go out to draw the same blackberry bush. One of them is as ignorant of all plants and of blackberry bushes in particular, as most artists are, knowing nothing but what he has picked up here and there by experience. The other is one who has a tolerably thorough knowledge of botany, who knows the general character and habits of blackberries—the manner in which they usually grow, their peculiarities of leafage and fruitage, the relative strength of the branches, and what sort of a curve the load of fruit would give to the pliant stem. In the same space of time, which artist will give us the truest, most complete, most finished picture of the bush, the ignorant or the scientific painter? Evidently, the latter. He at once sees the bush in its *ensemble*, not as a picture to the eye, but as a living, growing being, with a purpose and a design in each of its parts. He first catches the detail and its varied arrangement, and even if he has never before seen this particular species of blackberry he has at the start an advantage over his fellow laborer. The other, drawing it as he sees it before him, may produce in time, but in a longer time, a good and correct representation of the object, but apt to contain some errors. For there are in nature many doubtful and deceitful appearances, which bear a double meaning to the unassisted eye, especially if viewed from only one spot. It is these double appearances which it is the especial duty of scientific knowledge to explain, and to show which is the true one.

Again, certain appearances are seen under certain circumstances which are not seen under certain others. It often requires very nice scientific knowledge not to fall into the error of making too quick generalizations from our knowledge of phenomena.

Mr. Herbert Spencer cites Mr. Lewis and Mr. Rossetti as making this kind of mistake.

Right appreciation of works of art as well requires scientific knowledge. To perceive the full value and beauty and worth of things made, it is necessary to understand what difficulties were to be overcome, and what ends were to be sought. Nature must be known before she can be thoroughly appreciated. Only he who has sought in her the great secrets which she contains, who has studied her in all her varied manifestations, can really know her beauties, can really see for himself, or point out to others, the many wonderful and lovely things which she enfolds. And how much more in Art. If we require taught and enlightened eyes to see what is offered to the view of all, do we not require a gaze similarly strengthened and sharpened to perceive the spirit and intention of what Art offers to us as her interpretation of nature? Men, students of Art and Nature, present to us forms and images for our admiration and delight. None but those who have equal acquaintance with the thing attempted to be done, and the effect desired to be produced, can really and thoroughly esteem and judge of it as it deserves. No one so well as the mineralogist can perceive the endless beauties of nature's crystallizations. Where others see dross, he sees the sparkling ore and the brilliant gem, with their innumerable glittering facets. No one but the botanist has that vivid and burning sense of the vegetable marvels of the different zones. The reason is, perhaps, this. Where others see a general beauty they see special beauties. Where the uninstructed pass by with a glance and say "it is very beautiful," or "grand," or "delicate," those who have studied and thought and reflected on the eternal laws of things, see great wonders and astounding beauties in form and color and growth and habit. Ought not artists and art-workers to have some regard for those whose knowledge is great and whose appreciation is equally great? There they have their best public; these are those whose approbation they should most desire. Then let them paint, and draw, and carve, so as to please those who have made each special subject their study, and they will be sure of producing also all those lesser beauties and more general effects which please the lesser and more unlearned minds, while at the same time they are instructing others and making themselves more useful.

There is no greater fallacy than to suppose that Science and Nature are at strife, that the scientific mind is less poetic. It is indeed possible that minds may be so constituted as to receive knowledge, and merely take it in with no effect on their emotions. In them an excess of knowledge kills feeling. But do not judge of all from a few rare and even doubtful cases. In most men, scientific knowledge, especially the broader and more thorough it is, increases the poetic conceptions. Their increased knowledge gives them new perceptions, and with new perceptions their emotional nature is more affected. Any number of instances can be brought up to show that science does not impair the poetic spirit. The most that can be said is that it hinders the poetic expression. But this is only in cases where Science is studied to the exclusion of Art and other things, when Science is the profession and the love of that person. But that is no more the case with than any other absorbing pursuit; where Science is studied as a subsidiary to Art it has no such effect. The example of Goethe ought to put all such ideas to flight. Here was one who was the greatest poet of modern Germany, if not of modern Europe, who had a fine and thorough appreciation of painting and music, yet who studied Science *con amore* and prided himself more on his optical discoveries and theories than on all else that he accomplished. His theory in botany of the development of all parts of the plant from the leaf-type, is one which has been abundantly verified, and which has gained for its maker the thanks of all students of that science. Da Vinci is another illustrious example. A tender and earnest artist, he won the plaudits of his own and succeeding ages by his pictures. He benefitted his countrymen by his scientific and mechanical learning and skill. He left behind him numerous volumes on scientific subjects—unfortunately still unpublished—which anticipated the discoveries of Galileo and Copernicus and even of modern geologists and which, without doubt, place him at the head of all scientific men of that illustrious age. Besides this, his "Treatise on Painting," both as to its objects and methods, is still the great and unequalled thesaurus for its students. Such men are enough to show that the knowledge and even the pursuit of Science, do not necessarily interfere with the successful development of the artistic spirit. But it is sufficient for the purposes of the artist that he should study science as a mere auxiliary to his art, and not as an engrossing pursuit. Then, Science and Art will be found not to be at variance, and the artist will be greatly benefitted and not at all injured. The power of art-expression will be increased, and the capabilities of art will be enlarged. The perceptive and appreciative faculties of the public for whom art-work is designed will be widened, and we shall have not only a truer Art, but a greater love for it. One thing especially can Art learn from Science, and that is, the mode of study. Science teaches humility. Art is too often pursued with pride. True Art is indeed always humble, but most artists are men who have been accustomed to regard Art as distinct from Nature, and so plume themselves on what they suppose their own and especially human achievements. They do not see that great abundance and fulness of nature which their pictures will always come short of, but yet should ever strive to reach; they become too satisfied with what they have done and produced. The student of Science perceives how little he has wrested from the great unknown, and is content to be patient and unwearied in the attempt to get more knowledge. Let the art-student look also on the illimitability of nature, and how little, with his greatest efforts, he can express of it, and learn also suitable humility.

NATIONAL MUSIC.

Mr. Editor: It has been asked, Whence comes the plaintive element of American popular airs, and songs?

The answer requires a comparison of the music of all the races represented here, for it is natural that American music, differing, as everything American-born does, from the foreign parent stock, should still show somewhat of the influence of blood. And American music, like the American people, shows traces of most of the leading races of Europe, in such degree, as to bury all other influences beyond the sight of the ordinary observer. The one class that has at present, and promises for the future, the most influence on American music, is the Irish. And America may congratulate herself that it is so, for the Lyke Wake dirge is a worthy parent, though as yet not known to the opera, and but little troubled with "thirds," "fifths," "counterpoint," &c.;—so much the better; we may well get strength to walk, before we go to the dancing-school.

To prove this claim of the Irish element, examine the principal kinds of music, classified for convenience sake, by nations, though the classification should be by races, but that many of them are yet nameless. Thus the Italian (real, not German opera), skimming lightly over the notes, rather dwelling on the languor;—expressing, softly, dreamily, dying inflections, often light and lively; playful, but with a reserve of expression, as if its joy, though natural, was under some controlling influence; the joy of full ripeness, and the mellowing stage in power. In this compare it with the Scotch melody;—see "Dr. Beattie on Poetry and Music" for the particulars of the four different kinds of Scotch music, "namely, the southern melodies already noticed, the western or Gaelic airs, the northern or Strathspey music, and the species of brisk, exhilarating music distinguished by the name of reel, or dancing music, which cannot be considered as peculiar to any particular quarter." Of a different race, climate, and country, the Scotch rises quickly, and easily, as on the memory of great things; but loves to dwell on the falling, weary inflection, as of great things accomplished, as of rest for the great, and none to repeat their work; in this feeling of having lived to "the days of little men," Ossian expresses perfectly the feeling and expression common to both Scotch and Italian; a feeling that neither ever shakes completely off, for any length of time; and although the Scotch melody contains a different humanity, a more social fellow-feeling, a sort of lie-close-and-keep-warm expression, this is a very prominent feature, and one of its greatest characteristics, and peculiar charms.